## ARIZONA DEPARTMENT OF TRANSPORTATION \* MATERIALS GROUP

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# POLICY AND PROCEDURE DIRECTIVE

Douglas A. Forstie Assistant State Engineer

TO: ALL MANUAL HOLDERS	PPD NO. 96-8			
SUBJECT:	EFFECTIVE DATE:			
ANNUAL EVALUATION OF COMMERCIAL CONCRETE AGGREGATE PITS	March 1, 1996			

## **GENERAL**

This Policy and Procedure Directive supersedes P.P.D. No. 92-3.

This Policy and Procedure Directive outlines the procedure to be followed for the annual evaluation of commercial concrete aggregate pits and the identification by a partial legal description.

Metric (SI) units and values are given in this Policy and Procedure Directive with English units and values following in parentheses. Values given for metric and English units may be numerically equivalent (soft converted) for the associated units, or they may be given as rounded or rationalized values (hard converted). Either the metric or English units along with their corresponding values shall be used in accordance with applicable specifications.

### **PROCEDURES**

Commerical aggregate pits that are subject to use by the Department are required to be tested on a yearly basis to determine suitability as concrete aggregate. Each Materials Group Region will be responsible for the sampling of commercial aggregate pits.

The minimum sample size of fine and coarse aggregates taken for the annual evaluation of a commercial pit shall comply with the requirements of AASHTO T 2. The following tests on those samples shall be conducted by the Materials Group Central Laboratory. Sieve analysis shall be conducted on both the fine and coarse samples. The soundness test shall be conducted on both the fine and coarse samples when the aggregates are to be used in concrete placed above 1370 meters (4500 feet) elevation. Abrasion resistance shall be conducted on the coarse aggregate. Organic impurities and mortar strength are determined using the fine aggregate.

A uniform distribution during the year of sample submittals of commercial pits from within a Materials Group Region should be considered to reduce the impact due to the volume of this required testing.

For each sample, a Sample Tabulation Ticket shall be completed with all appropriate information. If the soundness test is to be performed, it should be so noted in the remarks area. The remarks area should also be completed to contain the name of the pit, and the partial legal description. A partial legal description of a pit can be generated by locating the commercial pit as close as possible according to the Township and Range notations shown on the General (County) Highway Maps. These maps are issued by the Department and available through Records Administration Section (Engineering Records) in Phoenix, and perhaps at the District Administration Offices.

There are two principal meridians in Arizona: the Gila and Salt River Meridian, and the Navajo Meridian. The Gila and Salt River Meridian governs most of the state, while the Navajo Meridian governs only a very small area in the northeast. In Utah, the Salt Lake Meridian is the principal meridian that identifies the area in Southern Utah.

Examples illustrating the relationship of Township, Range, Section, and Section Subdivisions are given in the ADOT Construction Manual in Chapter 14, subsections 1401.00 and 1402.00. For convenience, these items are included as Attachment #1 and Attachment #2, respectively, to this Policy and Procedure Directive.

Locate the position of the commercial pit as close as possible on the appropriate General Highway Map of the area. Determine which meridian governs the area and identify it by one of the following: (G) for the Gila and Salt River Meridian, (N) for the Navajo Meridian, and (S) for the Salt Lake Meridian. Proceed with the Township number (north or south), Range number (east or west), Section number, the first and second quarter of the section, and a half of the second quarter.

Shown in the table below are the possible correct entries for the corresponding partial legal description items for the the pit location:

Partial Legal  Description Item	Possible <u>Correct Entries</u>			
Baseline	G, N, or S			
Township	T_N or T_S			
Range	R_E or R_W			
Section	1 to 36			
1st Quarter	NE, NW, SE, or SW			
2nd Quarter	NE, NW, SE, or SW			
Half	N, S, E, or W			

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The individual writing the partial legal description should be able to complete all of the entries, except perhaps the last two parameters (the second quarter of the section and the half of the second quarter of the section). An example of the entries that should be shown in the remarks area of sample tabulation ticket is as follows: G, T24S, R24W, 4, NE, SW, N.

The commercial pit location description combined with the aggregate test results, both described above, form the Materials Pit Inventory Data Base Program. This program has the capability of searching and displaying all of the pit locations and test data in either a selected ADOT Materials Group Region or an area as specified by entering a partial legal description.

## **SUMMARY**

This procedure and the developed computer program, will provide for more accurate record keeping than under the previous card file by pit name. Also, this procedure will minimize the occurrence of duplicate tests being conducted.

Douglas A. Forstie Assistant State Engineer

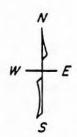
Materials Group

Approved by:

August V. Hardt Deputy State Engineer

Highway Operations Group

Attachments (2)

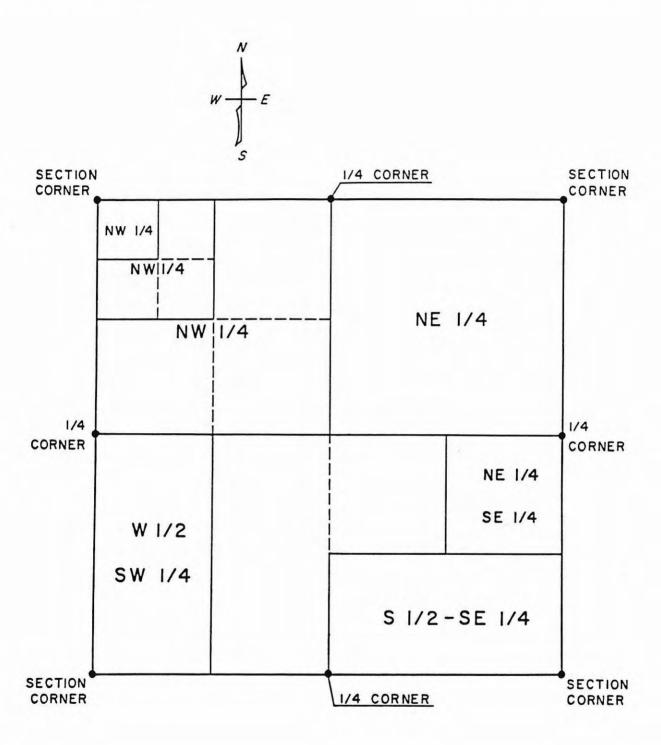


R.103 W. R.102 W.

R.102 W. R.101 W.

T. 3 N.	RANGE	IS LIN	32	33	34	35	RANGE	IE EN LIP
T. 2 V.	1	6	5	4	3	2	1	LINE 6
	12	7	8	9	10	11	12	7
	13	18	17	16	15	14	13	18
	24	19	20	21	22	23	24	19
-	25	30	29	28	27	26	25	30
2	36	31	32	33	34	35	36	31 TOWNSHIP
Γ. Ι Ι.	1	6	5	4	3	2	1	LINE 6

**SECTION 1401.00** 



Typical Subdivisions of a Section

**SECTION 1402.00**